

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/723,994	Confirmation No. 7981
Appellants : Martin Newman et al.	
Filed : November 25, 2003	
Title : GOLF CLUB STRIKING FACE AND METHOD OF MANUFACTURE	
TC/A.U. : 3711	
Examiner : Michael S. Chambers	
Docket No. : 0EKM-108414	
Customer No. : 30764	
Date : May 8, 2007	

CORRECTED APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Examiner's Final Office Action mailed August 10, 2006 ("the Final Office Action") finally rejecting claims 1-7, 20-25, and 27-39 in the above-identified patent application.

I. REAL PARTY IN INTEREST

The real party in interest in this application is the only assignee, Taylor Made Golf Company, Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellants and Appellants' legal representatives know of no related appeals or interferences. Therefore, no appeal or interference known to Appellants or Appellants' legal representatives will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-7, 21-25, and 27-39 are pending in the application. Claims 1-7, 20-25 and 27-39 have been finally rejected by the Examiner. Claims 8-19, and 26 were canceled. Appellants have appealed the rejection of claims 1-7, 21-25, and 27-39.

IV. STATUS OF AMENDMENTS

Appellants submitted an Amendment After Final rejection on December 11, 2006. Pursuant to an Advisory Action from the Examiner mailed January 10, 2007, the proposed Amendment was not entered, because it allegedly raised new issues that would require further search and review.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Independent Claim 1

Independent claim 1 is directed to a golf club head comprising a forward striking face and a rearward surface, opposite the forward striking face. The forward striking face includes an engineered texture having a substantially planar recessed surface and a prescribed, regular pattern of discrete, geometric shapes projecting forward from the recessed surface. The geometric shapes are spaced apart from each other along the recessed surface by at least 0.1 mm. In addition, each geometric shape is solid and has a volume of less than 0.0007 mm^3 . Support for this claim is found, *inter alia*, in paragraphs [0007], [0025] [0026], and [0035] through [0039] of the specification.

B. Independent Claim 29

Independent claim 29 is directed to a wedge-type golf club head comprising a forward striking face, which includes a substantially planar recessed surface and a regular pattern of discrete geometric shapes projecting from the recessed surface. The geometric shapes are spaced apart from each other along the recessed surface by at least 0.1 mm. In addition, each geometric shape is solid and has a volume of less than 0.0007 mm^3 . Support for this claim is found, *inter alia*, in paragraphs [0007], [0025] [0026], and [0035] through [0039] of the specification.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In the Final Office Action, the Examiner rejected claims 1-7, 21-25, and 27-39, as follows:

- Claims 1-7, 20-25, and 27-39 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over U.S. Patent No. 722,927 to Swift (the "Swift patent").
- Claims 20 and 22-24 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the Swift patent in view of specified "Official Notices."
- Claims 1-7, 20-25, and 27-39 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over U.S. Patent No. 749,174 to Davis (the "Davis patent").
- Claims 20 and 22-24 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the Davis patent in view of specified "Official Notices."

A. Statement of Issues

- 1) Whether claims 1-7, 20-25, and 27-39 are unpatentable under 35 U.S.C. § 103(a) over the Swift patent.
- 2) Whether claims 1-7, 20-25, and 27-39 are unpatentable under 35 U.S.C. § 103(a) over the Davis patent.

B. Grouping of Claims

With regard to Issue (1), above, claims 1-7, 20-25, 27, and 28 stand or fall together. Separately patentable are claims 29-39.

With regard to Issue (2), above, claims 1-7, 20-25, 27, and 28 stand or fall together. Separately patentable are claims 29-39.

VII. ARGUMENT

A. The § 103(a) Rejection of Claims 1-7, 20-25, and 27-39 Based on the Swift Patent

On pages 2-4 of the Final Office Action, claims 1-7, 20-25, and 27-39 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the Swift patent, and claims 20-24 were similarly rejected over the Swift patent in view of specified "Official Notices." Claims 2-7,

20-25, 27, and 28 all depend from independent claim 1, and claims 30-39 all depend from independent claim 29.

I. Independent Claim 1

Independent claim 1 defines a golf club head including a forward striking face having an engineered texture configured to include a recessed surface and a prescribed, regular pattern of discrete, geometric shapes projecting forward from the recessed surface. The geometric shapes are defined to be spaced apart from each other by at least 0.1 mm, and each geometric shape is defined to have a volume of less than 0.0007 mm^3 . In addition, the recessed surface is “*substantially planar*” and the geometric shapes are spaced apart from each other by the specified amount “*along the recessed surface*.” The substantially planar recessed surface, therefore, must lie *between* adjacent geometric shapes. This effectively excludes patterns of geometric shapes that are contiguous with each other such that they lack any intervening portion of a substantially planar recessed surface.

The Swift patent fails to disclose or suggest a golf club head having all of the features defined by independent claim 1. Instead, the Swift patent discloses a golf-stick or driver, including a face plate **B** having ribs or corrugations **B**², as shown in Fig. 1. These ribs or corrugations are *contiguous* with each other, with no separation distance between adjacent projections. The ribs form one continuous latticework and the geometric shapes formed by the ribs are not spaced apart from one another. This structure differs significantly from Appellants' claimed invention.

Contrary to the Examiner's assertions, the Swift patent fails to disclose a striking face with “a regular pattern of *discrete*, geometric shapes projecting from the recessed surface.” In addition, since Swift's ribs or corrugations form one contiguous lattice, the Swift patent lacks geometric shapes that are *spaced apart* from each other at all – let alone by at least 0.1 mm. Moreover, the Swift patent's contiguous lattice likely defines a volume much greater than 0.0007 mm^3 . A wholesale modification of the Swift patent golf stick, therefore, would be required to arrive at Appellants' claimed invention. Therefore, the Swift patent fails to disclose or suggest a golf club head incorporating all of the features set forth in independent claim 1.

In the Final Office Action, the Examiner stated as follows:

The specification provides no unexpected or surprising results in using the dimensions cited, therefore these limitations are considered design choices. It would have been obvious to one of ordinary skill in the art to have selected the appropriate dimension for the grooves, planar surfaces, and volume of the geometric shape based on manufacturing and marketing decisions.

Appellants respectfully disagree with the Examiner's assertion. The cited art fails to disclose any performance parameters for the club heads disclosed in the references. It would also be extremely onerous, if not impossible given the lack of cited dimensions, for Appellants to make prototypes of the club heads disclosed in the cited references in order to determine the performance parameters and, thus, show that the specific parameters and volumes claimed by Appellants give rise to unexpected or surprising results in comparison to the cited art.

However, it is important to note that Applicants' specification discloses the overall benefits and advantages of using club heads with the claimed geometric shapes in comparison to club heads without the geometric shapes. Specifically, in paragraph 40, the specification provides that the invention enhances the performance of the golf club head by providing an increased high backspin, a lower launch angle, and a higher ball speed, as compared to golf club heads that do not incorporate the invention. The Swift patent fails to disclose these advantages and benefits. Thus, based on a totality of the circumstances, the Examiner is precluded from finding that Appellants' claimed dimensions and volumes are merely obvious design choices.

For these reasons, the rejection of independent claim 1 based on Swift patent is improper and should be withdrawn. Rejected dependent claims 2-7, 20-25, 27, and 28 depend from independent claim 1 and more particularly define the invention. Therefore, the § 103(a) rejection of claims 1-7, 20-25, 27, and 28, based on the Swift patent, is improper and should be reversed.

2. Independent Claim 29

Independent claim 29 is directed to a wedge-type golf club head including a forward striking face having a recessed surface and a plurality of discrete geometric shapes

projecting from the surface, each such shape having a specified maximum volume and being separated from adjacent shapes by a specified minimum distance.

As discussed above, the Swift patent fails to disclose a striking face having a plurality of *discrete* geometric shapes projecting from the surface *separated* from adjacent shapes by a specified minimum distance. Its geometric shapes are contiguous with each other, and they are not separated from each other by the specified minimum distance along the recessed surface. A wholesale modification of the Swift patent golf stick, therefore, would be required to arrive at Appellants' claimed invention. Therefore, the Swift patent fails to disclose or suggest a golf club head incorporating all of the features set forth in independent claim 29.

Rejected dependent claims 30-39 depend from independent claim 29 and more particularly define the invention. For these reasons, the § 103(a) rejection of claims 29-39, based on the Swift patent, is improper and should be reversed.

B. The § 103(a) Rejection of Claims 1-7, 20-25, and 27-39 Based on the Davis Patent

On pages 4-6 of the Final Office Action, claims 1-7, 20-25, and 27-39 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the Davis patent, and claims 20-24 were similarly rejected over the Davis patent in view of specified "Official Notices."

The Davis patent fails to disclose or suggest a golf club head having all of the features defined by independent claims 1 and 29. Instead, Davis patent discloses a golf putter including four striking faces having roughened surfaces, so as to have "a good contact with the ball." As shown in Figures 1 and 2, the roughened surface appears to be comprised of square-like projections. Based on the proportions depicted in Figure 2, Appellants calculate that each square-like projection appears to have a length, width, and height of approximately 1.0 mm and, therefore, a total volume of approximately 1.0 mm³. This structure differs significantly from Appellants' claimed invention.

Contrary to the Examiner's assertions, the Davis patent fails to disclose, or even suggest, a striking face with geometric shapes defined to have a volume of less than 0.0007 mm³.

As discussed above in connection with the obviousness rejection based on the Swift patent, independent claims 1 and 29 both define a golf club head having a pattern of discrete, geometric shapes projecting from a substantially planar recessed surface, wherein each geometric shape is solid and has a volume of less than 0.0007 mm^3 . This effectively excludes the roughened surface comprising square-like projections disclosed in the Davis patent. Therefore, the Davis patent fails to disclose or suggest a golf club head incorporating all of the features set forth in independent claims 1 and 29.

Additionally, as discussed above, the cited art fails to disclose any performance parameters for the club heads disclosed in the references. Thus, it would be extremely difficult, if not impossible, for Appellants to show that the specific parameters and volumes recited in the claims give rise to unexpected or surprising results in comparison to the cited art. Appellants' specification discloses the overall benefits and advantages of using club heads with the claimed geometric shapes in comparison to club heads without the geometric shapes. Thus, based on a totality of the circumstances, the Examiner is precluded from finding that Appellants claimed dimensions and volumes are merely obvious design choices.

For these reasons, the rejections of independent claims 1 and 29 based on the Davis patent are improper and should be reversed. Claims 2-7, 20-25 and 28 all depend from independent claim 1, and claims 30-39 all depend from independent claim 29. These dependent claims add structural features that more particularly define the invention and thus further distinguish over the disclosure of the Davis patent. Therefore, the § 103(a) rejection of claims 1-7, 20-25, and 27-39, based on the Davis patent, is improper and should be reversed.


VIII. Conclusion

For the reasons set forth above, the rejections of the claims are improper and should be reversed. A decision directing the Examiner to issue a Notice of Allowance is respectfully requested.

Respectfully submitted,

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IX. CLAIMS APPENDIX

Claim 1: A golf club head, comprising:

a forward striking face; and

a rearward surface, opposite the forward striking face;=

wherein the forward striking face is configured to include an engineered texture having a substantially planar recessed surface and a prescribed, regular pattern of discrete, geometric shapes projecting forward from the recessed surface, wherein the geometric shapes are spaced apart from each other along the recessed surface by at least 0.1 mm and each geometric shape is solid and has a volume of less than 0.0007 mm^3 .

Claim 2: The golf club head of claim 1, wherein the pattern of geometric shapes has a total volume of less than 0.02 mm^3 , measured over a reference region in the forward striking face having a size of 2.5 mm by 2.5 mm.

Claim 3: The golf club head of claim 1, wherein the pattern of geometric shapes has a total volume, measured over a reference region in the forward striking face having a size of 2.5 mm by 2.5 mm, that is less than 25% of a volume over an equivalent portion of a golf club head having a striking face lacking such an engineered texture.

Claim 4: The golf club head of claim 1, wherein the pattern of geometric shapes has a total volume, measured over a reference region in the forward striking face having a size of 2.5 mm by 2.5 mm, that is less than 15% of a volume over an equivalent portion of a golf club head having a striking face lacking such an engineered texture.

Claim 5: The golf club head of claim 1, wherein each of the geometric shapes has a volume of less than 0.0003 mm^3 .

Claim 6: The golf club head of claim 1, wherein the geometric shapes all have the same shape and size.

Claim 7: The golf club head of claim 1, and further comprising a plurality of grooves formed in the forward striking face.

Claims 8-19 (canceled).

Claim 20: The golf club head of claim 1, wherein:

the forward striking face and the rearward surface form a front wall;

the golf club further include a body having a top portion, a toe portion, a heel portion, and a sole portion;

the top portion, toe portion, heel portion, and sole portion of the body define a front opening; and

the front wall is welded to the front opening of the body.

Claim 21: The golf club head of claim 20, wherein the front wall and at least the sole portion of the body are integrally formed with each other.

Claim 22: The golf club head of claim 1, wherein the golf club head is an iron-type head having a loft of at least 18° .

Claim 23: The golf club head of claim 1, wherein the golf club head is an iron-type head having a loft of at least 45° .

Claim 24: The golf club head of claim 20, wherein the body and the front wall together form a hollow head having a loft less than about 25° .

Claim 25: The golf club head of claim 1, wherein the engineered texture comprises a prescribed pattern of a first plurality of shapes and a second plurality of shapes, the first plurality of shapes being positioned adjacent to the second plurality of shapes.

Claim 26 (canceled).

Claim 27: The golf club head of claim 6, wherein the geometric shapes have more than one orientation.

Claim 28: The golf club head of claim 1, wherein each geometric shape has an area on the forward striking face that is less than 0.05 mm^2 .

Claim 29: A wedge-type golf club head having a forward striking face, the forward striking face comprising:

a substantially planar recessed surface; and

a regular pattern of discrete geometric shapes projecting from the recessed surface, the geometric shapes each being solid and having a volume of less than 0.0007 mm^3 ;

wherein adjacent geometric shapes are separated from each other along the recessed surface by a distance of at least 0.1 mm.

Claim 30: The golf club head of claim 29, wherein the geometric shapes each have a volume of less than 0.0005 mm^3 .

Claim 31: The golf club head of claim 30, wherein the geometric shapes each have a volume of less than 0.0003 mm^3 .

Claim 32: The golf club head of claim 29, further comprising a reference region on the forward striking face, the reference region measuring 2.5 mm by 2.5 mm, wherein the discrete geometric shapes disposed within the reference region have a combined volume of less than 0.05 mm^3 .

Claim 33: The golf club head of claim 32, wherein the forward striking face has a plurality of scorelines formed therein, and wherein the reference region is disposed between two adjacent scorelines.

Claim 34: The golf club head of claim 33, wherein the discrete geometric shapes disposed within the reference region have a combined volume of less than 0.02 mm^3 .

Claim 35: The golf club head of claim 29, further comprising:

a plurality of scorelines formed in the striking face; and

a reference region disposed between two adjacent scorelines, the reference region measuring 2.5 mm by 2.5 mm;

wherein the geometric shapes each have a volume of less than 0.0003 mm^3 and wherein the geometric shapes disposed within the reference region have a combined volume of less than 0.02 mm^3 .

Claim 36: The golf club head of claim 29, wherein the geometric shapes are about identical in size and shape.

Claim 37: The golf club head of claim 29, wherein the geometric shapes are spaced substantially evenly across the forward striking face.

Claim 38: The golf club head of claim 29, wherein the geometric shapes are formed as squares, diamonds, or circles.

Claim 39: The golf club head of claim 29, wherein the geometric shapes include a first plurality of geometric shapes and a second plurality of geometric shapes.

X. **EVIDENCE APPENDIX**

None.

XI. **RELATED PROCEEDINGS APPENDIX**

None.